In the Claims:

- Please cancel claims 1 - 84 presently on file and add new claims 85 - 251, as follows:

85. (New) A method for authenticating an optical storage medium having an optical data structure representative of a series of bits, the method comprising:

(a) reading the optical storage medium at a locus to obtain data true to the series of bits represented by the optical data structure at such locus;

(b) re-reading the optical storage medium at the locus to determine if the data obtained varies by one or more bits in the series of bits represented by the optical data structure at such locus; and

(c) authenticating the optical storage medium if the data obtained in step (b) differs from the data obtained in step (a).

86. (New) The method of claim 85 further comprising the step of: (d) prohibiting read of the series of bits represented by said optical data structure, or portion thereof, if the optical storage medium is not authenticated at step (c).

87. (New) The method of claim 85 further comprising re-reading the optical storage media at a second locus.

88. (New) The method of claim 85 wherein the data obtained in step (a) produces a signal that is inadequate to provide for an intended use of data stored on the medium.

89. (New) The method of claim 88 wherein the data obtained in step (b) produces a signal that is adequate to provide for an intended use of data stored on the medium.

90. (New) The method of claim 85 wherein the data obtained in step (a) comprises at least a portion of a file allocation statement.

91. (New) The method of claim 85 wherein re-reading at the locus occurs within about one second of reading at the locus.

92. (New) The method of claim 91 wherein re-reading at the locus occurs within about ten milliseconds of reading at the locus.

93. (New) The method of claim 92 wherein re-reading at the locus occurs within about one millisecond of reading at the locus.

94. (New) The method of claim 85 further comprising the step of: providing the optical storage medium with a light-sensitive compound.

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95. (New) The method of claim 94 wherein the light-sensitive compound has an emission wavelength of less than about 848 nm.

96. (New) The method of claim 94 wherein re-reading at the locus comprises reading a signal from the light-sensitive compound.

97. (New) The method of claim 94 further comprising providing a light-sensitive compound in the optical path of the locus and an optical detector.

98. (New) The method of claim 94 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by a detector in an optical reader.

99. (New) The method of claim 94 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a detector in an optical reader.

100. (New) The method of claim 98 wherein a light emission from the compound provides at least a portion of the data obtained in step (b).

101. (New) The method of claim 98 wherein the light-sensitive compound is excitable by light emitted by a light source in the optical reader.

102. (New) The method of claim 94 wherein the light-sensitive compound has an emission wavelength from about 770 nm to about 830 nm.

103. (New) The method of claim 102 wherein the light-sensitive compound has an emission wavelength of about 780 nm.

104. (New) The method of claim 94 wherein the light-sensitive compound has an emission wavelength from about 630 nm to about 650 nm.

105. (New) The method of claim 94 wherein the light-sensitive compound has an emission wavelength of about 530 nm.

106. (New) The method of claim 94 wherein the light-sensitive compound has an emission wavelength in the near infrared range.

107. (New) The method of claim 94 wherein the compound is luminescent.

108. (New) The method of claim 94 wherein the compound is phosphorescent.

109. (New) The method of claim 94 wherein the compound has an emission wavelength of about 780 nm, or about 530 nm, or both.

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110. (New) The method of claim 85 wherein the optical recording medium is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18, DVD-ROM and any optical recording medium.

111. (New) The method of claim 94 wherein the compound is a cyanine compound.

112. (New) The method of claim 94 wherein the compound is selected from the group consisting of indodicarbocyanines, benzindodicarbocyanines and hybrids thereof.

113. (New) A method of authenticating optical storage media including data structure, the method comprising:

reading the optical storage media at a locus to obtain a first set of usable data from the data structure at the locus; and

re-reading the optical storage media at the locus to obtain a second set of usable data, wherein the second set of usable data is different from the first set of usable data regardless of the data structure of the optical storage media at the locus.

114. (New) The method of claim 113 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data bit.

115. (New) The method of claim 113 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data byte.

116. (New) The method of claim 113 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data frame.

117. (New) The method of claim 113 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data block.

118. (New) The method of claim 113 wherein reading or re-reading the optical storage media at the locus to obtain data at the locus comprises reading or re-reading the optical storage media at the locus to obtain a data sector.

119. (New) The method of claim 113 further comprising re-reading the optical storage media at a second locus.

120. (New) The method of claim 113 wherein the first set of data produces a signal that is inadequate to provide for an intended use of data stored on the medium.

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121. (New) The method of claim 120 wherein the second set of usable data produces a signal that is adequate to provide for an intended use of data stored on the medium.

122. (New) The method of claim 113 wherein the second set of usable data comprises at least a portion of a file allocation statement.

123. (New) The method of claim 113 wherein re-reading at the locus occurs within about one second of reading at the locus.

124. (New) The method of claim 123 wherein re-reading at the locus occurs within about ten milliseconds of reading at the locus.

125. (New) The method of claim 124 wherein re-reading at the locus occurs within about one millisecond of reading at the locus.

126. (New) The method of claim 113 further comprising providing the optical storage medium with a light-sensitive compound.

127. (New) The method of claim 126 wherein re-reading at the locus comprises reading a signal from the light-sensitive compound.

128. (New) The method of claim 126 further comprising providing light-sensitive compound in the optical path of the locus and an optical detector.

129. (New) The method of claim 126 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by an optical reader.

130. (New) The method of claim 126 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a reader.

131. (New) The method of claim 129 wherein a light emission from the compound provides at least a portion of the second set of usable data.

132. (New) The method of claim 129 wherein the light-sensitive compound is excitable by light emitted by the optical reader.

133. (New) The method of claim 126 wherein the light-sensitive compound has an emission wavelength from about 770 nm to about 830 nm.

134. (New) The method of claim 133 wherein the light-sensitive compound has an emission wavelength of about 780 nm.

135. (New) The method of claim 126 wherein the light-sensitive compound has an emission wavelength from about 630 nm to about 650 nm.

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136. (New) The method of claim 126 wherein the light-sensitive compound has an emission wavelength of about 530 nm.

137. (New) The method of claim 126 wherein the light-sensitive compound has an emission wavelength in the near infrared range.

138. (New) The method of claim 126 wherein the compound is luminescent.

139. (New) The method of claim 126 wherein the compound is phosphorescent.

140. (New) The method of claim 126 wherein the compound is excitable at a wavelength of about 780 nm or about 530 nm.

141. (New) The method of claim 126 wherein the compound has an emission wavelength of about 780 nm, or about 530 nm, or both.

142. (New) The method of claim 126 wherein the light-sensitive compound has an emission wavelength of less than about 848 nm.

143. (New) The method of claim 126 wherein the compound has emission wavelengths of about 780 nm and about 530 nm.

144. (New) The method of claim 113 wherein the optical recording medium is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18, DVD-ROM and any optical recording medium.

145. (New) The method of claim 144 wherein the optical recording medium is a CD.

146. (New) The method of claim 144 wherein the optical recording medium is a CD-ROM.

147. (New) The method of claim 144 wherein the optical recording medium is a DVD.

148. (New) The method of claim 126 wherein the compound is a cyanine compound.

149. (New) The method of claim 126 wherein the compound is selected from the group consisting of indodicarbocyanines, benzindodicarbocyanines and hybrids thereof.

150. (New) The method of claim 126 wherein the compound is an indodicarbocyanine.

151. (New) The method of claim 126 wherein the compound is an benzindodicarbocyanine.

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152. (New) The method of claim 126 wherein the compound is a hybrid of an indodicarbocyanine and a benzindodicarbocyanine.

153. (New) A method of authenticating an optical storage medium, the medium having a first plane including data and a second plane having a light-sensitive compound, the method comprising:

reading data from the first plane on the optical storage medium;

exciting the light-sensitive compound in a second plane on the optical storage medium;

and

reading data from the second plane of the optical storage medium.

154. (New) The method of claim 152 comprising instructing a reader to alter a focal length of a laser.

155. (New) A method of treating an optical storage medium comprising:

recording a first set of usable data on an optical storage medium;

applying a light-sensitive compound to the optical storage medium at a location on the optical storage medium so that the light-sensitive compound may cooperate with the first set of usable data; and

selectively activating at least a portion of the light-sensitive compound, wherein, in the activated state, the light-sensitive compound allows reading of the first set of data and wherein the light-sensitive compound is responsive to excitation to produce a second set of usable data that is different from the first set of usable data.

156. (New) The method of claim 155 wherein the light-sensitive compound is activated b-v crosslinking.

157. (New) The method of claim 156 wherein the light-sensitive compound is crosslinked by laser activation.

158. (New) A method for dissuading the illicit copying of data stored on an optical data storage medium comprising a series of optical deformations representative of data, said method comprising the steps of:

introducing one or more physical changes into or on said optical data storage medium at selected positions on or within said optical data storage medium, wherein selected positions are mapped with respect to said optical deformations, and wherein said physical changes do not alter the physical structure of said optical deformations;

incorporating into the data stored on said optical data storage medium a program instruction set for detecting said physical changes in said optical data storage medium at said mapped positions and for effectuating read of said data stored on said optical data

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storage medium when said physical changes are determined to be present at said select positions on or within said optical data storage medium.

159. (New) The method of claim 158 wherein said physical change comprises a light-sensitive compound placed on or in said optical data storage medium.

160. (New) The method of claim 159 wherein the light-sensitive compound is a light absorptive compound.

161. (New) The method of claim 159 wherein the light-sensitive compound is a light emissive compound.

162. (New) The method of claim 161 wherein the light-sensitive compound is a phosphorescent compound.

163. (New) The method of claim 159 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by a detector in an optical reader.

164.(New) The method of claim 159 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a detector in an optical reader.

165. (New) The method of claim 159 wherein the light-sensitive compound is cyanine compound.

166. (New) The method of claim 159 wherein the light-sensitive compound is selected from the group consisting of: indodicarbocyanines, benzindodicarbocyanines, and hybrids thereof.

167. (New) A method for dissuading the illicit copying of data stored on an optical data storage medium in an optical data structure, said method comprising the steps of:

introducing into or on said optical data storage medium a material capable of altering the data read of said optical data structure between a first data state represented by said optical data structure and a second data state not true to said optical data structure;

incorporating into the data stored on said optical data storage medium a program instruction set for detecting said first data state and said second data state and for effectuating read of said data stored on said optical data storage medium when said optical data storage medium displays said first data state and said second data state upon data read of said optical data storage medium.

168. (New) The method of claim 167 wherein said material comprises a light-sensitive compound.

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169. (New) The method of claim 168 wherein the light-sensitive compound is a light absorptive compound.

170. (New) The method of claim 168 wherein the light-sensitive compound is a light emissive compound.

171. (New) The method of claim 168 wherein the light-sensitive compound is a phosphorescent compound.

172. (New) The method of claim 168 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by a detector in an optical reader.

173. (New) The method of claim 168 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a detector in an optical reader.

174. (New) The method of claim 168 wherein the light-sensitive compound is cyanine compound.

175. (New) The method of claim 168 wherein the light-sensitive compound is selected from the group consisting of: indodicarbocyanines, benzindodicarbocyanines, and hybrids thereof.

176. (New) A method for dissuading the illicit copying of data stored on an optical data storage medium in an optical data structure representing a series of bits, said method comprising the steps of:

(a) reading the optical storage medium at a locus to obtain data true to the series of bits represented by the optical data structure at such locus;

(b) re-reading the optical storage medium at the locus to determine if the data obtained varies by one or more bits in the series of bits represented by the optical data structure at such locus; and

(c) dissauding copying of the optical storage medium if the data obtained in step (b) differs from the data in step (a).

177. (New) A computer-readable medium storing data in whole or part in an optical data structure representing a series of bits, said computer-readable optical data storage medium containing instruction for controlling a computer system to permit read of said computer-readable medium, by:

(a) detecting at a locus of said optical storage medium data true to the series of bits represented by said optical data structure;

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(b) detecting at said locus of said optical storage medium data varying by one or more bits in the series of bits represented by the optical data structure at such locus;
(c) permitting read of said optical storage medium when the data obtained in step (b) differs from the data in step (a).

178. (New) An article of manufacturing comprising a computer usable medium having computer readable program code embodied in an optical data structure, said article of manufacture including one or more sites of optical dis-uniformity therein that are not embodied in said optical data structure, said sites of optical dis-uniformity hampering the normal copying function of a computer, and wherein said computer readable program code comprises computer readable program code for causing said computer to read said optical data structure, or portion thereof, only when said sites of optical dis-unformity are present in said computer usable medium.

179. (New) The article of manufacture of claim 178 wherein said sites of optical dis-uniformity comprise a light-sensitive compound.

180. (New) The article of manufacture of claim 179 wherein the light-sensitive compound is a light absorptive compound.

181. (New) The article of manufacture of claim 179 wherein the light-sensitive compound is a light emissive compound.

182. (New) The article of manufacture of claim 181 wherein the light-sensitive compound is a phosphorescent compound.

183. (New) The article of manufacture of claim 179 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by a detector in an optical reader.

184. (New) The article of manufacture of claim 179 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by a detector in an optical reader.

185. (New) The article of manufacture of claim 179 wherein the light-sensitive compound is cyanine compound.

186. (New) The method of claim 179 wherein the light-sensitive compound is selected from the group consisting of: indodicarbocyanines, benzindodicarbocyanines, and hybrids thereof.

187. (New) A data storage medium readable with a reader, the data storage medium comprising:

a substrate;

optical data structure on the substrate, the optical data structure representative of a plurality of data bits; and

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a material capable of existing in at least a first optical state and a second optical state, the first optical state being convertible to the second optical state upon exposure to an input signal, and the second optical state being spontaneously convertible after a period of time to the first optical state;

wherein the material is positioned at one or more discrete loci along the data storage medium in respect of the optical structure, such that when the data storage medium is first read at a locus, and the material is in its first optical state, the bit data read is true to the optical data structure at such locus, while when the data storage medium is re-read at the locus, and the material is in its second optical state, the data bit read varies by one or more bits from that true to the optical data structure at the locus.

188. (New) The data storage medium of claim 187 wherein the data obtained when the data storage medium is first read produces a signal that is inadequate to provide for an intended use of data stored on the medium.

189. (New) The data storage medium of claim 188 wherein the data obtained when the data storage medium is re-read produces a signal that is adequate to provide for an intended use of data stored on the medium.

190. (New) The data storage medium of claim 187 wherein the data obtained when the data storage medium is first read comprises at least a portion of a file allocation statement.

191. (New) The data storage medium of claim 187 wherein the material is a light-sensitive compound.

192. (New) The data storage medium of claim 191 wherein the light-sensitive compound has an emission wavelength of less than about 848 nm.

193. (New) The data storage medium of claim 191 wherein the light-sensitive compound has an emission wavelength at a wavelength detectable by the reader.

194. (New) The data storage medium of claim 191 wherein the light-sensitive compound absorbs light that, in the absence of the light-sensitive compound, would be detected by the reader.

195. (New) The data storage medium of claim 191 wherein light emission from the compound provides at least a portion of the data obtained when the data storage medium is re-read.

196. (New) The data storage medium of claim 191 wherein the light-sensitive compound is excitable by light emitted by a light source of the reader.

197. (New) The data storage medium of claim 191 wherein the light-sensitive compound has an emission wavelength from about 770 nm to about 830 nm.

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198. (New) The data storage medium of claim 197 wherein the light-sensitive compound has an emission wavelength of about 780 nm.

199. (New) The data storage medium of claim 191 wherein the light-sensitive compound has an emission wavelength from about 630 nm to about 650 nm.

200. (New) The data storage medium of claim 191 wherein the light-sensitive compound has an emission wavelength of about 530 nm.

201. (New) The data storage medium of claim 191 wherein the light-sensitive compound has an emission wavelength in the near infrared range.

202. (New) The data storage medium of claim 191 wherein the compound is luminescent.

203. (New) The data storage medium of claim 191 wherein the compound is phosphorescent.

204. (New) The data storage medium of claim 191 wherein the compound has an emission wavelength of about 780 nm, or about 530 nm, or both.

205. (New) The data storage medium of claim 187 wherein the optical recording medium is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, DVD-18, DVD-ROM and any optical storage medium.

206. (New) The data storage medium of claim 191 wherein the compound is a cyanine compound.

207. (New) The data storage medium of claim 191 wherein the compound is selected from the group consisting of indodicarbocyanines, benzindodicarbocyanines and hybrids thereof.

208. (New) An optical disc comprising:
a substrate having one or more information pits and lands thereon readable as digital data bits by an optical reader, and
a light-emissive compound positioned over, under, in, or on, one or more of said information pits and lands;
wherein said light-emissive compound is positioned so as to affect the bit read of said optical reader when said compound is emitting light, but not affecting the bit read of said optical reader when said compound is not emitting light.

209. (New) The disc of claim 208 wherein the light-emissive compound has an emission wavelength at a wavelength detectable by the reader.

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210. (New) The disc of claim 208 wherein light emission from the light-emissive compound provides at least a portion of the data obtained when the disc is read.

211. (New) The disc of claim 208 wherein the light-emissive compound is excitable by light emitted by a light source of the reader.

212. (New) The disc of claim 208 wherein the disc is selected from the group consisting of CD, CD-Audio, CD-ROM, CD-G, CD-i, CD-MO, CD-R, CD-RW, DVD, DVD-5, DVD-9, DVD-10, .DVD-18, DVD-ROM and any optical disk.

213. (New) An optical disc comprising:

a substrate;

a data track disposed on the substrate, the data track including a first set of usable data; and

a light-sensitive compound disposed on at least a portion of the disk and cooperating with at least a portion of the data track, the light-sensitive compound being excitable with a suitable stimulus to produce a second set of usable data that is different from the first set of usable data regardless of the first set of usable data in the data track.

214. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is adapted to emit a wavelength of less than about 848 nm.

215. (New) The disc of claim 213 wherein the data track is injection molded.

216. (New) The disc of claim 213 wherein the data track is formed via a recording dye.

217. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is active.

218. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is phosphorescent.

219. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is fluorescent.

220. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 770 and about 830 nm.

221. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 630 and about 650 nm.

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222. (New) The disc of claim 213 wherein the light-sensitive compound is excitable by a light source emitting light at a wavelength between about 780 nm and by a light source emitting at about 530 nm.

223. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is adapted to emit at 780 nm.

224. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is adapted to emit at 530 nm.

225. (New) The disc of claim 213 wherein at least a portion of the light-sensitive compound is adapted to emit at both about 780 nm and about 530 nm.

226. (New) The disc of claim 213 wherein the light-sensitive compound comprises a cyanine compound.

227. (New) The disc of claim 213 wherein the light-sensitive compound comprises indodicarbocyanines.

228. (New) The disc of claim 213 wherein the light-sensitive compound is benzindodicarbocyanines.

229. (New) The disc of claim 213 wherein the light-sensitive compound is a hybrid of indodicarbocyanines and benzindodicarbocyanines.

230. (New) The disc of claim 213 wherein a portion of the light-sensitive compound is adapted to be selectively activated.

231. (New) The disc of claim 213 wherein the light-sensitive compound is less than about 160 nm in thickness.

232. (New) The disc of claim 213 wherein the light-sensitive compound is activated by crosslinking.

233. (New) The disc of claim 213 wherein the light-sensitive compound is activated by laser activation.

234. (New) The disc of claim 213 wherein the light-sensitive compound is activated to provide at least a portion of a file allocation statement.

235. (New) The disc of claim 213 wherein the data track includes instructions to re-read a locus on the disk.

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236. (New) The disc of 213 wherein activated light-sensitive compound is disposed under at least a portion of the locus.

237. (New) The disc of claim 236 wherein activated light-sensitive compound is disposed over at least a portion of the locus.

238. (New) The disc of claim 236 wherein the activated light-sensitive compound is a delayed luminescent or phosphorescent compound.

239. (New) The disc of claim 236 wherein the activated light-sensitive compound is interpretable by a reader to provide a response different from that provided by the data track.

240. (New) The disc of claim 213 wherein the data track includes instructions to continue accessing data on the disk based on the first and second sets of usable data being different.

241. (New) The disc of claim 213 wherein the light-sensitive compound is disposed on the disk by spin coating.

242. (New) The disc of claim 213 wherein the light-sensitive compound is less than about 120 nm in thickness.

243. (New) The disc of claim 213 wherein the light-sensitive compound is less than about 10 nm in thickness.

244. (New) The disc of claim 213 wherein the light-sensitive compound is less than about 1 nm in thickness.

245. (New) An optical recording medium comprising:
data structure having a first set of data; and
means for producing, upon re-reading at least a portion of the optical recording medium having the first set of data, a second set of data that is different from the first set of data regardless of the data structure having the first set of data.

246. (New) The optical recording medium of claim 245 wherein the second set of data is temporary.

247. (New) An optical recording medium comprising a data track formed of at least one of pits and lands representing a first set of usable data, wherein at least a portion of an output of the data track is predictably altered upon re-reading to produce a second set of usable data that is different from the first set of usable data regardless of the formation of the data track.

248. (New) The recording medium of claim 247 wherein the second set of data is temporary.